

Robinson (B)

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CASE OF CHRONIC LARYNGITIS,

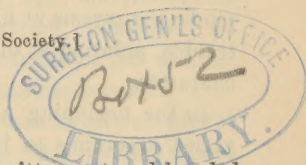
SERVING TO

ILLUSTRATE HOW THE MUCOUS MEMBRANE OF THE VOCAL CORDS
MAY BE IN AN OBJECTIVE MORBID CONDITION, THOUGH
THEIR PHYSIOLOGICAL FUNCTIONS BE RESTORED.

By BEVERLEY ROBINSON, M.D.,

SURGEON TO THE MANHATTAN EYE AND EAR HOSPITAL (DEPARTMENT OF THE THROAT), ETC.

[Read before the New York Laryngological Society.]



THE following case is given verbatim, as it was written out and handed to me by the patient himself:—

"D. S., thirty years of age. My home is in the West. Three years ago I came to New York city, and entered Union Theological Seminary, and began a course of study for the ministry. Since then and for about seven years previous, I have been accustomed to more or less public speaking, and to a very great deal of public singing.

"During my vacation last summer (1874), I engaged in preaching for several months on the coast of Maine, and near the close of the summer had trouble with my voice. At first it was slight, but soon became quite annoying. It was not the ordinary hoarseness, but in speaking there would be a catch or break in my voice; and by this I mean that in the midst of a sentence I would lose a word, or rather fail to speak it, often-times making several attempts to pronounce it before I would succeed. This was especially marked in singing; here my voice would fail me in the midst of a measure, and I would be unable to complete it. But the quality of my voice was not affected, for my tones were as sure and strong as they had ever been.

"Soon another troublesome symptom developed itself. In the night I would be aroused from sleep with a spasm of the throat, and for some seconds would be unable to inflate my lungs, and in my attempts to do so would whoop like a person with the whooping-cough. In this condition I returned to the city, and in October (1875) put myself under the care of Dr. Beverley Robinson, who informed me that I had *chronic catarrhal laryngitis*. He began treatment with the sulphate of zinc in the form of spray, besides making various applications with the brush three times a week.

"For a month or six weeks there was little or no improvement, and during this period at times even ordinary conversation was difficult and

painful. The treatment was continued, and varied from time to time, and presently there began to be improvement, and this continued up to three weeks ago (February 15), when all treatment was left off. Since then I have used my voice both in speaking and singing, and on several occasions put it to a severe test; and so far as I am able to judge, I am now (March 6, 1875) entirely well."

Remarks.—In the perusal of the above-detailed case, we shall notice two symptoms which occasionally present themselves in chronic inflammatory changes of the throat and air-passages. First, an inability at times during speech or singing to articulate certain words or give correct and complete tones in familiar measures of musical vocalization.

These phenomena were present at first temporarily, in a slight degree, and only after severe exercise of the vocal organ; at a subsequent period they showed themselves more frequently and persistently, and after a less prolonged effort of voice. Pain during ordinary conversation and spasmodic paroxysms at night were then superadded to the other evidences of trouble, pointing at once to its neurotic origin, as well as to its neuralgic character.

In the beginning and for several weeks general and local treatment, varied according to indications and accepted therapeutic action of particular drugs, remained without apparent results. Little by little, and after a considerable lapse of time, the spasmodic and painful symptoms disappeared, and gradually the voice acquired its normal force and flexibility, till to-day the patient is, so far as he is aware, completely cured.

In this connection, we are led almost naturally to consider two or three interesting facts having a direct relation with clinical study and experience.

The evening our patient was presented to the members of the New York Laryngological Society, the mucous membrane lining his vocal cords was still swollen and very red. In fact, there has been little change in the aspect of the larynx from the time when treatment was begun. And yet this same patient, who talks and sings to-day as well as he ever did, a few months since could only speak and sing in a very imperfect manner, and was awakened at night with painful spasms of the throat. What has taken place? Evidently the laryngeal mucous membrane has not been much changed by local applications. We are therefore obliged to take refuge in one of two hypotheses. 1. The muscles were morbidly affected. 2. The peripheral extremities of the pneumogastrics were diseased.

The painful and spasmodic phenomena at one time manifest, led us to the *nerves* as being the most probable source and seat of the disease, while the lack of co-ordinative power in the muscles was doubtless secondary to the nerve lesion.

Our astringent applications within the larynx, and the medicaments administered by the mouth, have doubtless, therefore, brought back a

normal condition in nerve force, and the muscles again act synergetically and with a healthy degree of vigour. Want of vocal power is no infrequent occurrence, we are well aware, during and subsequent to catarrhal inflammations of the throat, either of an acute or chronic order. And for this loss of functional tonicity to show itself, it is not essential that the morbid processes should affect directly the mucous membrane lining the vocal organ itself. The inflammatory condition may only be obvious in the pharynx, and the larynx be apparently healthy. Such facts are explained by us in attributing the change of voice to abnormal circulation or diseased structure in or about the pneumogastric trunks.

In these cases, however, the tones of the voice become, as a rule, *pure*, as the parts adjacent to the larynx are favourably modified by local remedies. True it is, as Krishaber has demonstrated, that after catarrhal or other inflammations and changes of the vocal cords, the voice may remain hoarse and weak for a greater or less period of time, and the muscles be deficient in contractility, although their *visible* condition is healthy. In our case the mucous membrane of the glottis continues to be red and infiltrated, and the voice, singularly enough, is completely restored.

Happily our interpretation, which follows, is sufficient to give a rational explanation of a clinical state rigorously observed. All gynæcologists are familiar with facts of an analogous description. In nervous, hysterical, neuralgic women, do they not find that neuralgia affecting the lumbo-abdominal nerves frequently leads to congestive disorder of the interior surface of the womb, and also to concomitant dysmenorrhœa, amenorrhœa, and metrorrhagia?

Our patient was evidently labouring under nerve disorder of the throat from the time when his voice first began to fail him.

And now that the other manifestations of disordered innervation of functional or organic origin have disappeared, chronic thickening and congestion of the laryngeal mucous membrane still remain.

Will it disappear? In time it may. Having regard, however, to the nature of his profession and to the frequent calls made upon his voice, in fact to the *exaggerated* use of this organ which he is almost of necessity forced to make, we can hope for no *speedy* change in this respect unless he should guard relative or absolute repose from speaking aloud and vocalization.

There is still a point to which we claim attention. Modern physiology teaches us that the inner borders of the true cords alone furnish sonorous vibrations when air escapes from the lungs through the glottis during an expiratory movement.

It would, therefore, seem as if, and we believe it is thus generally understood, the vocal cords should be altogether normal in structure and appearance at this margin in order to make the act of perfect phonation possible. And, without doubt, this received opinion is usually the cor-

rect one, for the rule is that, whenever the interior lining of the glottis is even slightly congested, thickened, or in any manner altered, articulate speech is notably modified.

In our case, reported above, we have, nevertheless, an instance of a departure from healthy appearances, and yet the timbre and strength of the voice are to-day what they were when it was believed to be, and it probably was, in a normal state. Such an example must tend to establish the belief that integrity of the peripheral extremities of the laryngeal nerves and well adjusted action of the muscles are quite as important to the proper and accurate production of vocal sounds as the condition of the mucous membrane.

We find also this view corroborated by analogy with certain instruments of music. Take for example the violin or violoncello. Do we not know that although the cords may be somewhat worn by use, if the proper tension be given them, and the instrument is otherwise perfect, under the bow of a skilled artist the sweetest and purest notes can be produced?

Now most facts in medical science are true with limitations. And this is certainly correct with respect to what we have endeavoured to prove. Manifestly we have no wish to affirm that the laryngeal mucous membrane, when morbidly affected to an *exaggerated* extent, will not occasion more or less complete aphonia.

Too frequent instances, with few or no exceptions, where growths or deep ulcerations upon the vocal cords have been the proximate and efficient cause of similar trouble, are present to our mind for the truth of such a statement to be admitted. We would merely point out and lay stress upon this important clinical fact, not in our knowledge *sufficiently* made known to us by recognized authorities in like matter, *that good and strong if not perfect power of articulation in speech and singing, may exist though the vocal cords are congested and somewhat thickened.*

Finally, we offer the following proposition as being the expression of what in our estimation should be received as a *probable truth*, viz., actors, singers, public speakers, hawkers, etc., acquire, after a period of time more or less prolonged, a chronic inflammatory condition of the laryngeal mucous membrane, and especially of that portion of it lining the vocal cords, which, although treated actively and with the result of ridding them of painful or unpleasant symptoms, will continue to exist for a long while, and for this state, general or topical, remedial agents are inefficacious. Change of occupation would no doubt eventually bring about such effect in the nutrition of the parts as to restore them gradually to normal appearance as well as to normal function. Unless this indication be practically dealt with, it is probable that everything else in the way of treatment, prophylactic, hygienic, or poly-pharmaceutic, will in some cases be to no purpose.